

REMARKS/ARGUMENTS

The above listed claim amendments along with the following remarks are fully responsive to the Office Action mailed on July 26, 2006. Claims 50 and 53-60 are pending and claims 50 and 59-60 have been amended. Support for the Amendments is found throughout the drawings and specification and specifically at paragraphs [0054] - [0056] and FIGS. 1, 4, and 6-10.

The Applicants would like to thank the Examiner for the helpful comments in the July 26, 2006 Office Action. In view of those comments, it is believed that the above Amendments and the below Remarks place the pending claims in a condition for allowance. If, however, the Examiner has any further concerns regarding the pending claims, the Examiner is encouraged to contact the Applicants' representative at the Examiner's convenience.

I. Claim Rejections – 35 USC § 112

Claims 50 and 59-60 were rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the written description requirement. The Examiner stated that the negative limitation “the beams do not touch one another regardless of the distance to the target surface” is not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors, at the time the application was filed, had possession of the claimed invention.

While it is believed that the above limitation was properly taught and disclosed in the application as filed, in order to speed the present claims towards allowance and to respond to the examiner's rejection, claims 50 and 59-60 have been amended to more closely track the language in the Specification. Claims 50 has been amended to recite that the pair of spots on the target surface are offset such that the “spots are always offset from each other.” Claim 59 has been amended to recite that the pair of “spots are always vertically offset from each other.” Claim 60 has been amended to recite that the beams are “always offset from each other.” Support for this language comes from paragraphs [0055] and [0056] and FIGS. 1, 4, and 8-10 of the application as published. Specifically, the application states that it is “preferable to have beams 76 and 78 offset such that the illuminated spots are always offset from each other.” Par. [0055]. In order for the spots to always be offset, the beams must always be offset. In addition, FIGS. 4 and 8-10

illustrate an “offset distance 90” that is preferably one inch when the gun is at the desired position from the target surface. *See* par. [0056]. The offset distance results from the beams 76 and 78 being “located apart by a predetermined diverging angle 84.” Par. [0056].

Each of claims 50, 59, and 60 as amended therefore comply with the written description requirement and withdrawal of this rejection is respectfully requested.

II. Claim Rejections – 35 USC § 103

Claims 50 and 53-58 were rejected under 35 USC §103(a) as being obvious over U.S. patent 4,444,495 to Dwight W. S. A. Bramwell et al. (“Bramwell”) in view of U.S. patent 6,301,997 to Gregory A. Welte (“Welte”) and U.S. patent 4,836,671 to Val Bautista (“Bautista”).

Independent claim 50, however, is not obvious in view of the cited art. First, Bautista is not properly combinable with Bramwell or Welte. Second, the hypothetical combination of Bramwell in view of Welte and Bautista fails to teach, suggest, or disclose all of the limitations of independent claim 50. Furthermore, claim 50 does not read upon any hypothetical combination of Bramwell in view of Welte and Bautista. Claim 50 is therefore not obvious over the cited prior art.

Claims 53-58 are each dependent upon claim 50 and are likewise not obvious over the cited prior art for at least the below discussed reasons. In addition, each of these dependent claims recites at least one additional feature such that the combination of limitations of each dependent claim is not taught nor suggested by the hypothetical combination of the cited prior art.

A. Bramwell, Welte, Bautista Are Not Properly Combinable

Bramwell, Welte, and Bautista are not properly combinable because the paths of the projected beams cannot be reconciled to achieve a common result. First, however, a quick review of what Bramwell, Welte, and Bautista disclose may first be helpful.

In Bramwell, the pitch and rotational angle of a spray nozzle is aligned with a target area through the use of a protection tube 11 that contains a sealed laser system 14. The protection tube 11 is mounted by a clamping device 13 next to the spray nozzle such that the laser system 14 projects two diverging beams in the direction of the target area. The diverging beams strike the target area and indicate the projected path of the spray. The protection tube 11 is not

disclosed for movement toward or away from the target area. Rather, the protection tube is placed at a fixed distance from the target area and only provides for pitch and rotational orientation. Bramwell states that the “operator observing the position of the dots can either rotate the nozzle tip slightly about its axis to align the dots on the target or if the dots are too low or too high, movement of the nozzle either up or down will adjust the dots to the desired target position.” Col. 4, lines 18-23.

Turning now to Welte, the Applicants agree with the Examiner that Welte teaches the use of visible light beams as a positioning aid. However, Welte, like Bramwell, assists the user in locating and maintaining the proper angular orientation of a tool with respect to a target surface without indicating whether the proper distance between the tool and target surface is achieved. Welte projects a line or series of spots of light within a V shaped envelope with the source of light at the vertex of the V. Welte also describes a two spot aiming system within which a line inferred between the spots assists in aligning a drill which must necessarily contact the target surface. Col. 3, lines 55-67. The tool may therefore be guided to a point on the line between two of the spots. In fact, Welte is not dependent or related to the distance to the target surface because it is designed to be used with tools requiring zero operating distance from the target surface (nail guns and power drills).

Bautista teaches determining “a point, line, or plane in space with respect to an object along an axis of projection from the object.” Abstract. Bautista includes beam generators that project a plane of light and also a ray oriented in the plane of light. The “coincidence of the ray and marking of the axis of projection in the plane indicates that the point in space has been located with respect to the object.” *Id.* Rays 34 and/or 50 intersect with an X-ray projected along axis 14 to help indicate points in space.

Bautista is not properly combinable with Bramwell and/or Welte because Bramwell and Welte rely on divergent beams to check the alignment of a spray nozzle (Bramwell) or a power tool (Welte). As shown in Bramwell FIG. 2, a divergent beam is necessary to determine the rotational orientation of the spray nozzle. Likewise, FIGS. 9, 11-13, 56, and 64 of Welte show the importance of the V-shaped diverging beam envelope to position the power tool. Bautista, in contrast, requires at least one ray 34 or 50 to converge with an X-ray projected along an axis 14 or to converge with one of two light planes 40, 44. *See* col. 2, lines 55-57; col. 3, lines 1-7, 17-

20, 36-41; and col. 4, lines 17-22, 47-54, and 63-65. As shown in reference to FIG. 10, for example, ray 68 must intersect light beam 66 and ray 72 must intersect light beam 64, regardless of whether 66 and 64 are “parallel, diverging, or converging.” *See* col. 4, lines 40-54. If the light beams of Bramwell or Welte were set up to converge, the utility would be severely limited as the light beams would not contact the target area with sufficient breadth to provide the desired positional reference frame.

Bautista, Bramwell, and Welte therefore cannot be combined to achieve the invention as claimed in the present application.

B. Claim 50 is Not Obvious in View of A Hypothetical Combination of Bramwell, Welte, and Bautista

Claim 50 has been amended to recite “moving the gun toward or away from the surface until the pair of illuminated spots are in a predetermined desired alignment pattern on the target surface whereby the gun is positioned at the desired distance from the surface.” Claim 50 has also been amended to recite that the first and second beams are “offset such that the spots are always offset from each other.”

In contrast, the hypothetical combination of Bramwell, Welte, and Bautista does not teach, suggest, or disclose “moving the gun toward or away from the surface” to position the nozzle a desired distance away from the target surface.

Bramwell, rather, teaches selecting a pitch or rotational orientation for the spray nozzle. The pitch and rotational angle of the spray nozzle is selected through “the use of a light beam projected” onto a target area “to indicate any misalignment.” Bramwell therefore does not teach, suggest, or disclose “moving the gun toward or away from the surface” as recited in claim 50.

Moreover, moving Bramwell towards or away from the target area would render Bramwell unsuitable for its intended purpose. FIG. 4 illustrates the position of the laser as projected onto the target area when the spray nozzle is properly aligned. *See* col. 2, lines 64-68. As shown in FIGS. 2-4, the liquid spray is projected on about the same vertical plane at about the same pitch as the laser and therefore contacts the target area at approximately the same place. If the laser and the spray nozzle were to be moved towards or away from the target area, it would significantly affect the path of the spray as compared to the path of the laser. If the distance from

the target area is increased too far, the ability of the laser to predict the path of the spray nozzle would most likely be reduced.

Welte fails to correct the deficiencies of Bramwell. Welte, like Bramwell, assists the user in locating and maintaining the proper positional or angular orientation of a tool with respect to the target surface without indicating whether the proper distance between the tool and target surface is achieved. Welte therefore does not help to orient the equipment's distance from the target area, but only the alignment with known points, such as with a framing member behind a sheet of material in the case of using Welte with a drywall screw gun. Welte therefore does not correct the deficiencies of Bramwell.

Bautista also does not correct the deficiencies of Bramwell. Bautista, whether combined with Bramwell alone or in combination with Welte, does not teach "moving the gun toward or away from the surface." Moreover, Bautista does not teach beams that are "offset such that the spots are always offset from each other." Rather, in Bautista the "coincidence of the ray and the marking of the position of the axis of projection in the plane indicates" the point in space has been located. Bautista actually requires some point of convergence to assist in locating the desired distance from the projector.

The hypothetical combination of Bramwell in view of Welte and Bautista therefore does not include "moving the gun toward or away from the surface until the pair of illuminated spots are in a predetermined desired alignment pattern on the target surface whereby the gun is positioned at the desired distance from the surface" or first and second beams that are "offset such that the beams are always offset from each other."

The hypothetical combination of Bramwell, Welte, and Bautista does not render claim 50 obvious. The combination of Bramwell, Welte, and Bautista is improper. Moreover, even if they were properly combinable, the combination does not teach, suggest, or disclose all of the limitations recited in claims 50. Claim 50 furthermore does not read upon Bramwell in view of Welte and Bautista. For at least these reasons, reconsideration and withdrawal of the rejection based upon Bramwell in view of Welte and Bautista is respectfully requested.

In addition, dependent claims 53-58 depend directly or indirectly from independent claim 50 and are therefore also allowable for at least these same reasons.

PETITION FOR EXTENSION OF TIME

The Applicant herewith petitions the Commissioner to extend the time for reply to the Office Action dated July 26, 2006 for one (1) month, from October 26, 2006, to November 26, 2006. A credit card payment in the amount of \$120.00 for a one-month extension of time is submitted herewith. No additional fee is believed to be necessary for the entry of this paper. Should any additional fee be required for entry of this paper, the Commissioner is authorized to charge the Faegre & Benson Deposit Account No. 06-0029 and in such event, is requested to notify us of the same.

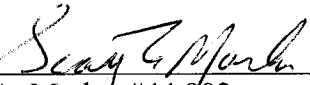
CONCLUSION

All pending and not withdrawn claims are now in condition for allowance. A notice to that effect is respectfully requested.

Respectfully Submitted,

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Dated: November 20, 2006